A well known but often neglected fact is that malignant melanoma frequently originates in a pigmented nevus that has remained quiescent for many years. The urgent need for eradication of such lesions before malignant transformation occurs cannot be stressed too often. In addition to emphasizing the validity of the above statements, the case here reported presents features which are somewhat unique from an anatomical standpoint.

**Case Report**

F. J. S. J., a white male, a dentist forty-nine years of age, had noticed a pigmented mole, the size of a pinhead, on the right temple, just in front of the upper attachment of the pinna, for some ten years. Just how long he had been wearing glasses is not recorded, but the conclusion seems justified that his having done so for some years may have subjected the lesion to considerable chronic irritation. A rather rapid increase in size was noticed between May and July 1929, at which time the growth was excised. The lesion removed measured $2 \times 2.5$ cm. and was raised above the skin surface about 2 mm. Microscopic examination was said to have shown a benign pigmented nevus.

Other details of the previous history seem irrelevant to the present consideration. There was no impairment of the patient's general health until six months after removal of the growth, when he complained of prostration. Nausea and vomiting developed as prominent features in May 1930, and at that time hoarseness and difficulty in swallowing
were experienced. Early in June a small hard nodule was found behind the right ear, and another nodule in the right axilla. The axillary nodule, removed June 7, revealed malignant melanoma.

The patient was referred to the White Memorial Hospital Research Annex in Los Angeles, Aug. 26, 1930, where observations on the effect of the adrenal cortex extract of Coffey and Humber were in progress. Different phases of the problem have been reported by Harris (3) and the writer (1).

At the time of admission this case was considered hopeless. During the preceding two months the patient's daily requirement of morphine had risen from 1/4 to 1 1/4 grains. He had been confined to bed for nearly three weeks.

Examination revealed a slightly built and considerably emaciated white male. The temperature was normal, the pulse 104 and the respirations 20 per minute. The blood pressure was 126/98. The patient estimated his weight at 99 pounds, and stated that he normally weighed 123. A cataract was present in the left eye, the result of trauma many years before. Small purplish tumor masses were observed in the tonsillar fossae, and there were numerous small nodules in the cervical lymph nodes and subcutaneous tissues.

Examination of the chest was made difficult by lack of cooperation on the part of the patient, who complained that moving was productive of nausea. Expansion of the chest was good and no abnormal breath sounds were detected. A distinct systolic murmur was heard at the apex of the heart, transmitted to the vessels of the neck and angle of the
There were numerous subcutaneous dark tumor nodules scattered over the surface of the thorax. Similar nodules were present over the scalp, the abdomen, and the lower extremities. The liver margin was 4 cm. below the costal border in the right mid-clavicular line. The tendon reflexes were active and equal. The urine presented no abnormal pigmentation.

By Sept. 30, 1930, the nausea and vomiting had become greatly aggravated. One hundred and sixty-six subcutaneous nodules of pigmented tumor were counted over the body, exclusive of those on the scalp. There were several large nodules in the groins. Blood was expectorated occasionally, but there was no cough. The patient complained of being continually thirsty. There was an apparent diminution of normal peristaltic sounds, and the patient stated that he believed that four inches of the transverse colon had been paralyzed for some weeks. Tingling and numbness in the right thumb and index finger had developed. The body weight had dropped to 92 pounds. For five weeks vision in the right eye had rapidly failed.

Death occurred Dec. 18, 1930. In the meantime the patient had discontinued injections of adrenal cortex extract and returned to his home in another city. Nothing is known of the details of his condition in the interval.

Autopsy: Autopsy was performed eight hours after death and immediately subsequent to embalming. The external examination revealed thousands of intracutaneous and subcutaneous melanotic nodules, varying in diameter from 3 to 20 mm. Examination of the lungs revealed only three metastatic nodules, all of small size (2 cm.). The peribronchial lymph nodes, however, were considerably enlarged from melanoma. A purulent bronchitis and bronchopneumonia were present.

The heart presented the very striking picture shown in the illustrations. In addition to the scattered melanomas, there was a calcareous stenosis of the aortic valve.

Upon examination of the abdominal viscera, the liver was found to contain three small melanotic tumors, two of which were in the left lobe. The gallbladder contained some small nodules. The pancreas was studded with metastases, as seen in the illustration. Both adrenals contained diffuse melanotic tumor tissue as well as discrete nodules: one weighed 29 gm. and the other 15 gm. The spleen showed no tumor tissue. The lymph nodes about the celiac axis and in the mesentery and omentum all showed metastatic involvement. The intestine presented submucous nodules of melanoma, each about 1 cm. in diameter. The kidneys were extensively involved, and it seems remarkable that they succeeded in functioning in view of the small amount of apparently normal tissue present. Tumor nodules were present in the prostate and in the epididymis, but not in the testicular substance.

On examination of the head, numerous nodules were found in the scalp and many
small nodules scattered through the calvarium and meninges. No nodule was to be found in the substance of the cerebrum or cerebellum, but melanoma tissue was present in the optic chiasm and in the posterior portion of the pituitary gland.

**DISCUSSION**

Since the brain is not infrequently involved by melanoma, it is difficult to understand why it should have escaped in this instance, particularly as the meninges were so thickly studded with tumor nodules. The involvement of the optic chiasm would seem to explain the rather rapid loss of vision noted in the history. It is interesting, also, to consider what part the involvement of the pituitary stalk had to do with the excessive thirst manifested clinically. Although the pancreatic involvement might also theoretically account for this change, it would seem most reasonable to connect it with the pituitary, since there was no disturbance of sugar metabolism, as would be expected were the thirst to be accounted for on a pancreatic basis.

![Image of Pituitary Involvement](https://example.com/pituitary_involvement.png)

**Fig. 6. Pituitary Involvement; Infiltration by Tumor of about One-Half of Stalk**

The profound nausea and vomiting manifested by this patient and that encountered in Addison’s disease due to tuberculosis were indistinguishable clinically. It seems likely that in this case destruction of adrenal tissue by tumor was productive of the syndrome. It has been pointed out by the writer (1) that adrenal metastases occur in various malignant conditions more commonly than is appreciated. This observation has been recently confirmed by Burke (2), and should be more generally recognized.

A review by the writer of the tissues removed at the first operation in the case here reported reveals unquestionable evidence of malignancy at that time. I believe it correct to say that a history of rapid increase in the growth of a pigmented nevus is more reliable evidence of malignant transformation than a negative histological report with such a history is evidence that such a process does not exist.

**References**